

**EMBARK 90 SC**  
**MATERIAL SAFETY DATA SHEET**

**SECTION-1**

**PRODUCT /COMPANY IDENTIFICATION**

Product Name : EMBARK 90 SC  
Active Ingredient : Flonicamid 70.0 g/L + Emamectin Benzoate 20.0 g/L SC  
Chemical family : **Flonicamid:** Pyridine carboxamide  
**Emamectin Benzoate:** Avermectin  
CAS No : **Flonicamid:** 158062-67-0  
**Emamectin Benzoate:** 155569-91-8  
Type of Formulation : Suspension concentrate (SC)  
Indented Use : Commercial Insecticide  
Company/Supplier : **SINERIA HOLLAND BV.**  
details  
Randwycksingel 20-A015 6229 EE, Maastricht.  
The Netherlands  
[www.sineria.com](http://www.sineria.com)

**SECTION-2**

**COMPOSITION/ INFORMATION ON INGREDIENTS**

Active Ingredient	CAS No	QTY (g/L)
Flonicamid	158062-67-0	70.0 g/L
Emamectin Benzoate	155569-91-8	20.0 g/L

**SECTION-3**

**HAZARD IDENTIFICATION**

**Pictograms**



**H-Statements**

H302 : Harmful if swallowed  
H304 : May be fatal if swallowed and enters airways  
H315 : Causes skin irritation  
H320 : Causes eye irritation  
H332 : Harmful if inhaled  
H360 : May damage fertility or the unborn child

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H410 : Very toxic to aquatic life with long-lasting effects

#### Precautionary Statements

- P102 : Keep out of reach of children.  
P210 : Keep away from heat, sparks, open flames and hot surfaces-No Smoking  
P260 : Do not breathe mist, vapors or spray  
P262 : Do not get in eyes, on skin, or on clothing.  
P264 : Wash contacted areas thoroughly after handling.  
P270 : Do not eat, drink or smoke when using this product.  
P273 : Avoid release to the environment.  
P280 : Wear protective gloves, protective clothing and eye and/or face protection.
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#### SECTION-4

#### FIRST AID MEASURES

- General Advice : In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).  
First aider: Pay attention to self-protection!.
- If ingestion : Do NOT induce vomiting. Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.
- If inhaled : If product is inhaled, remove person to fresh air. If not breathing, give artificial respiration. Seek medical attention if breathing problems develop.
- If on skin : Remove contaminated clothing. Wash skin and hair thoroughly; do two soap and water washings.
- If in eyes : Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- Note to physicians : Treat symptomatically
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## SECTION-5

## FIRE FIGHTENING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment
- Specific hazards arising from the chemical : No specific hazard known.
- Firefighting Instructions : Fire fighters should wear full protective gear, including self-contained breathing apparatus. Keep unnecessary people away. If it can be done safely, remove intact containers from the fire.
- In the event of fire, wear self-contained breathing apparatus.
- In the event of fire and/or explosion do not breathe fumes.

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## SECTION-6

## ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : In case of spillage it is important to take all steps necessary to: Avoid contact with the spilled material or contaminated surfaces.
- Extinguish or remove any sources of ignition. When dealing with spills do not eat, drink or smoke and wear protective clothing and equipment. Keep people and animals away. Prevent spilled material from entering drains or watercourses.
- Environmental precautions : Do not allow to get into surface water, drains and ground water. If the product contaminates rivers and lakes or drains inform respective authorities.
- Reposition any leaking containers so as to minimize leakage. Dam and absorb spill with an absorbent material (eg. sand or soil). Shovel the absorbed spill into drums
- Methods and materials for containment and cleaning up : Contain spill and absorb with earth, sand, clay, or other absorbent material. Collect and store in properly labelled, sealed drums for safe disposal. Deal with all spillages immediately). Take up mechanically, placing in appropriate containers for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations if contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.

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## SECTION-7

## HANDLING AND STORAGE

- Precautions for safe handling : Safe work practices are recommended. Avoid contact with eyes and skin.
- When opening the container and preparing spray wear appropriate PPE (refer Section 8).
- Do not spray under high wind conditions.
- Conditions for safe storage : Keep out of reach of children, unauthorized persons and animals.
- Store in tightly sealed original containers in a dry secure place away from fertilizers, feed and food.
- Incompatibilities : Store out of direct sunlight and extreme temperature.

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## SECTION-8

## EXPOSURE CONTROLS AND PERSONAL PROTECTION

- Engineering controls : Use only with adequate ventilation. Keep container tightly closed. Do not generate dust.

### Personal protective equipment (PPE)

- Respiratory protection : Use NIOSH/MSHA approved respirator appropriate for exposure of concern.
- Hand protection : Protective gloves
- Eye protection : Wear safety glasses with side shields. Additionally, wear a face shield where the possibility exists for face contact due to splashing, spraying or airborne contact with this material.
- Skin and body protection : Where there is potential for skin contact have available and wear as appropriate impervious gloves, apron, pants, and jacket.

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## SECTION-9

## PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Off-white Suspension Liquid
- pH : 3-6
- Explosive Properties : Non-Explosive
- Oxidizing properties : Not oxidizing
- Stability : Stable under normal temperature and pressure

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## SECTION-10

## STABILITY & REACTIVITY

- Possibility of Hazardous Reactions : No dangerous reaction known under conditions of normal use and storage conditions.
- Chemical Stability : This product is chemically stable under recommended conditions of storage, use and temperature.
- Conditions to Avoid : Protect this product from light. Store in the closed original container in a dry, cool, well ventilated area out of direct sunlight.
- Incompatible materials : Strong acids, strong bases, strong oxidizing agents.
- Polymerization : This product will not undergo polymerization reactions.

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## SECTION-11

## TOXICOLOGICAL INFORMATION

### Based A.I. Information

#### Flonicamid

- Acute oral LD<sub>50</sub>, mg/kg rats : 884 (male), 1770 (female)
- Acute dermal LD<sub>50</sub>, mg/kg rabbits : >5000
- Acute Inhalation LD<sub>50</sub>, mg/kg rat : > 4.9 (4h)
- Skin Irritation (rabbits) : Not an irritant
- Eye Irritation (rabbits) : Not an Irritant
- Skin Sensitization (guinea pigs) : Not a sensitizer

#### Emamectin Benzoate

- Acute oral LD<sub>50</sub>, mg/kg rats : 56-63
- Acute dermal LD<sub>50</sub>, mg/kg rabbits : >2000
- Acute Inhalation LD<sub>50</sub>, mg/kg rat : > 0.663 (Female, 4h) ; > 1.05 (Male, 4h)
- Skin Irritation (rabbits) : Not an irritant
- Eye Irritation (rabbits) : Irritant
- Skin Sensitization (guinea pigs) : Not a sensitizer
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## SECTION-12

## ECO-TOXICOLOGICAL INFORMATION

### Based A.I Information

#### Flonicamid

Acute oral LD <sub>50</sub> for quail	:	>2000 mg/Kg
Rainbow trout	:	>100mg/L
Carp LC <sub>50</sub> , (96h)	:	>100 mg/L
Daphnia EC <sub>50</sub> (48h)	:	> 100 mg/L
Algae EC <sub>50</sub> (96h) P. subcapitata	:	> 100 mg/L
Bees (LD <sub>50</sub> , µg/bee)	:	>100 (Contact); >61 (contact)

#### Emamectin Benzoate

Acute oral LD <sub>50</sub> for Mallard duck	:	>76 mg/kg
Acute oral LD <sub>50</sub> for Bobwhite quail	:	>264 mg/Kg
Rainbow trout LC <sub>50</sub> , (96h)	:	>0.174 mg/L
Daphnia LC <sub>50</sub> (48h)	:	>0.00099 mg/L
Bees (LD <sub>50</sub> , µg/bee)	:	Toxic
Worms (LC <sub>50</sub> , for earthworm)	:	>1000mg/Kg soil

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## SECTION-13

## DISPOSAL CONSIDERATIONS

Waste from residues/unused products	:	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	:	Improper disposal or reuse of this container may be dangerous and illegal.

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## SECTION-14

## TRANSPORT INFORMATION

General Transport Information	:	It is considered good practice not to transport agricultural chemical products with food, food related materials and animal feed products.
Proper shipping Name	:	Environmentally hazardous substance, liquid, N.O.S
[Land/Air/Sea]	:	(Contains Flonicamid and Emamectin Benzoate)
UN Number	:	3082
Class	:	9

## SECTION-15

## REGULATORY INFORMATION

GHS07: Harmful

GHS09: Environmental hazard

GHS08: Health hazard

### H-Statements

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## SECTION-16 OTHER INFORMATION

The information contained in the Material Safety Data Sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, disposal, storage and transportation and is not intended as a warranty or as a specification. The information relates only to the product specified and may not be suitable for with other materials or in processes other than those specifically described herein.

Supplier make no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions. We disclaim all liability for injury or damage stemming from any improper use of the material or product described herein.

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